



Supporting Game-Based Training

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Supporting Game-Based Training

- **Blended training**
 - Simulations/game-based training combined with traditional browser-based training
 - Effective for sharing lessons learned authored in the field
 - Immersive environment
 - Shared experience with teammates
- **The problem**
 - A framework is needed to:
 - Ease and standardize incorporation of game-based training into browser-based training
 - Share such blended content with the training community

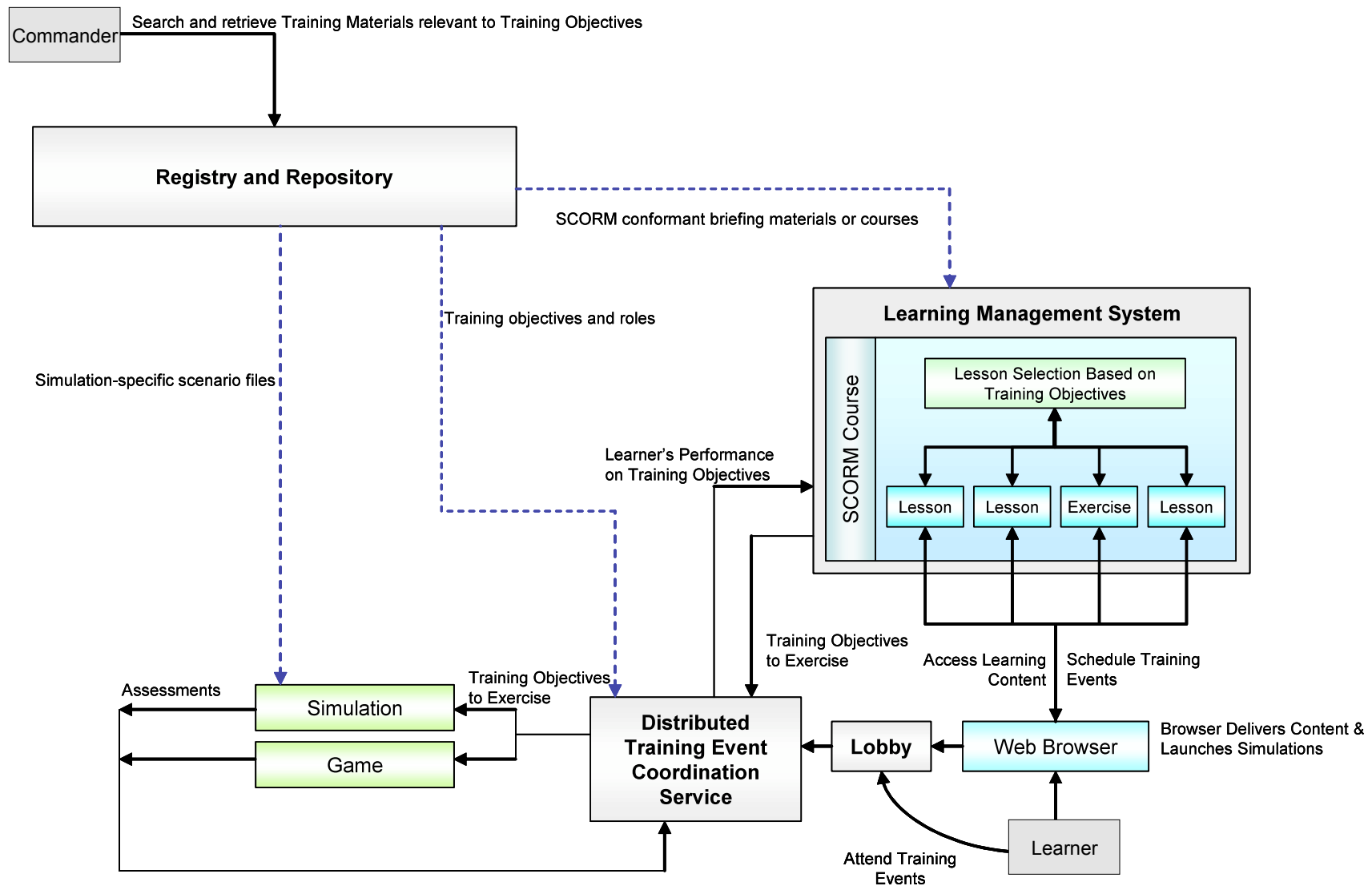
Supporting Game-Based Training

- **Why blended training?**
 - Games and simulations alone aren't training
 - A browser-based learning management system (LMS) provides:
 - Contextualizing collateral – maps, briefing information, objectives
 - Generalized framework for remediation and review
- **A well-defined integrated training architecture and reuse approach...**
 - Allows field-authored game-based training scenarios to be easily discovered and shared
 - Facilitates use of existing game-based and SCORM-based training tools
 - Allows trainee performance to be tracked across training tools by objective

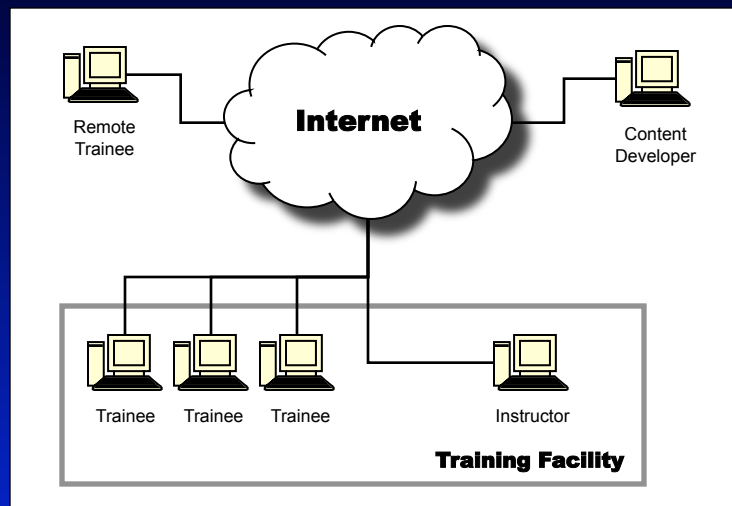
Issues

- **Inclusiveness**
 - A wide variety of training systems should be supported, including those supporting team training
- **Reusability**
 - Producing blended training content is complicated, time-consuming
 - No standardized approach to sharing with the community
 - What ought to be stored?
 - **Not executables**
 - Too large
 - Security/installation issues
 - **Data level**
 - Scenario files
 - XML configuration files
 - SCORM courses

Integrated Training Architecture

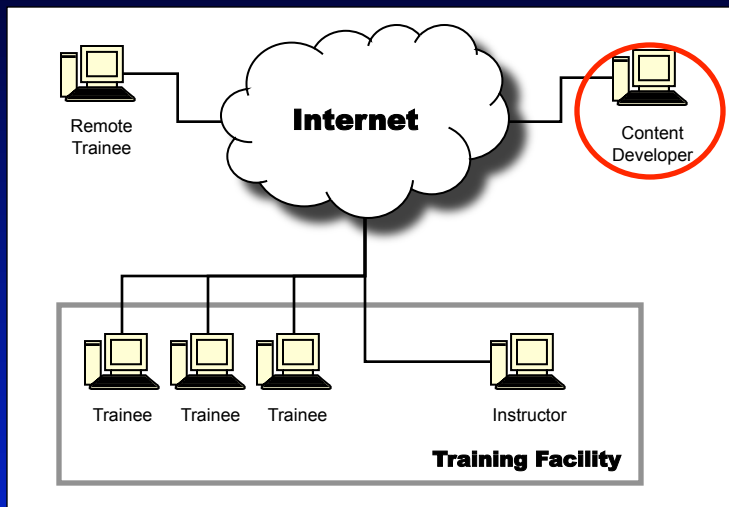


Usage Timeline

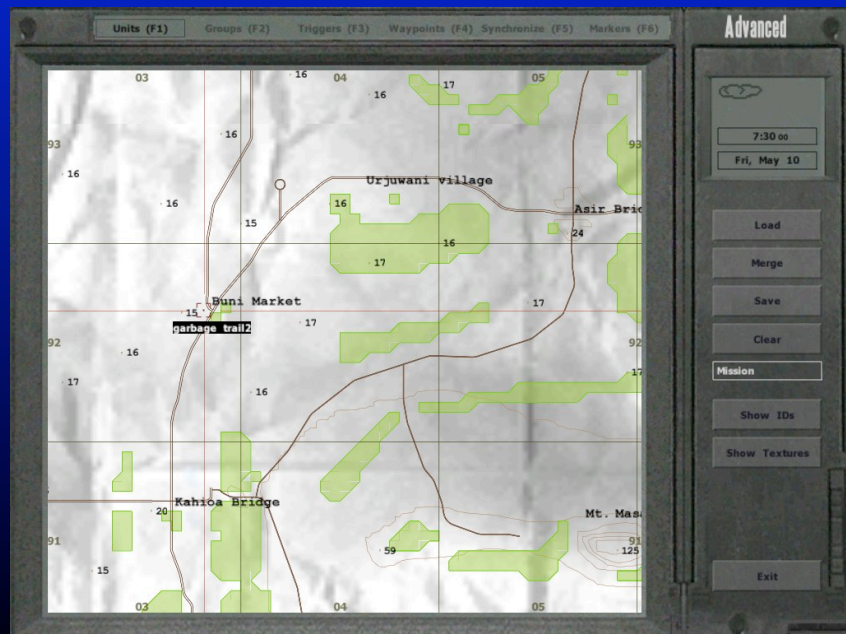


- **Content Developer**
 - Creates blended training package
 - Uploads to repository
- **Instructor**
 - Searches registry for blended content
 - Installs blended content
 - (Optional) Schedules training course
- **Trainee(s)**
 - Log on to LMS (Learning Management System)
 - Enter DTECS (Distributed Training Event Coordination Service) lobby
 - Begin simulation or game-based training session
- **Instructor**
 - Reviews scores

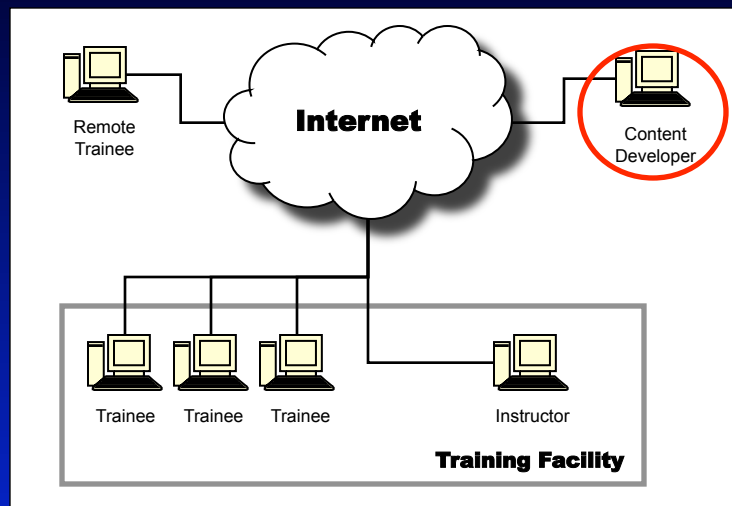
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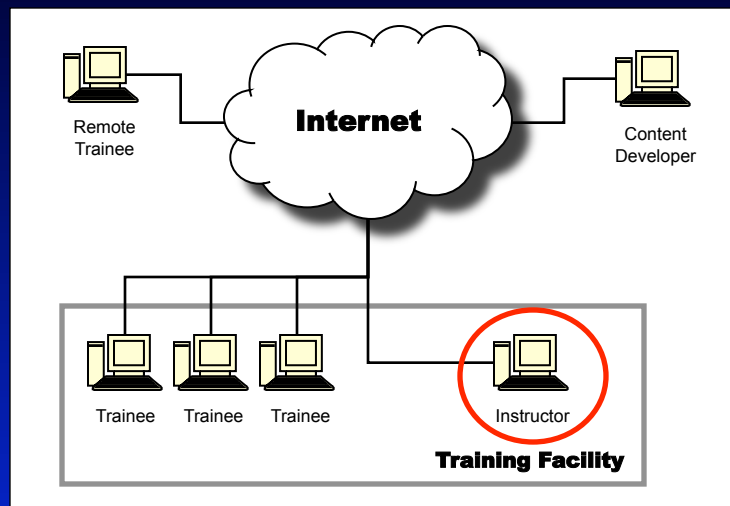
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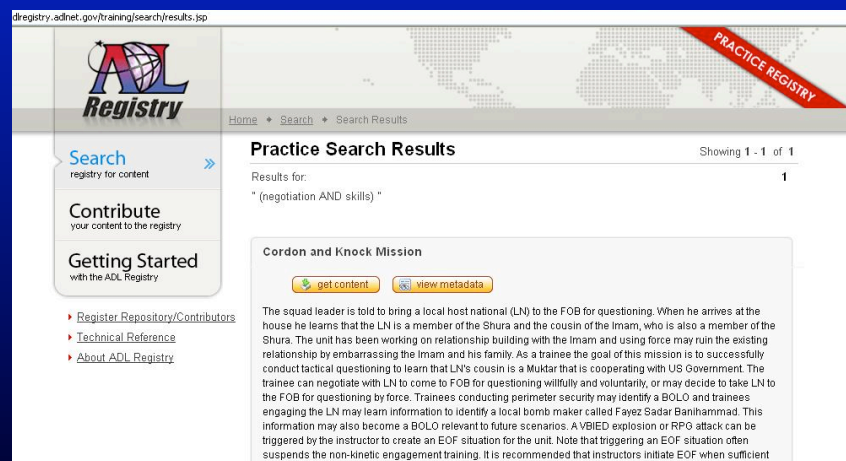
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The screenshot shows the 'ADL Registry' website. The main heading is 'Contribute Content with Form'. Below the heading, there is a text block explaining the tool's purpose: 'This tool will assist you in creating and submitting the XML transaction batch files used by the ADL Registry. With this tool you will be able to provide information about your content object in easy to use and understand forms. Your information will be used to generate the appropriate ADL Registry transaction batch file. Once your batch file has been created you will be able to view, download, and submit your transaction. Please note that required fields are marked by "(*)'.' Below this text is a form with the following fields: 'Username:' (text input, marked with a red asterisk), 'Password:' (text input, marked with a red asterisk), 'Email Address:' (text input, marked with a red asterisk), 'Group ID:' (text input, marked with a red asterisk), and 'Target Registry:' (dropdown menu, marked with a red asterisk). The dropdown menu is currently set to 'Operational Registry'. There is a 'Continue' button at the bottom of the form. On the left side of the page, there is a sidebar with a search bar and links to 'Contribute', 'Getting Started', 'Register Repository/Contributors', 'Technical Reference', and 'About ADL Registry'.

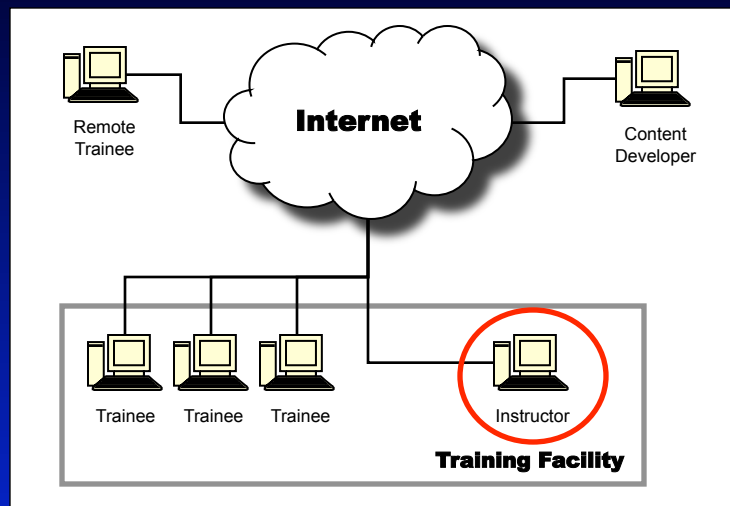
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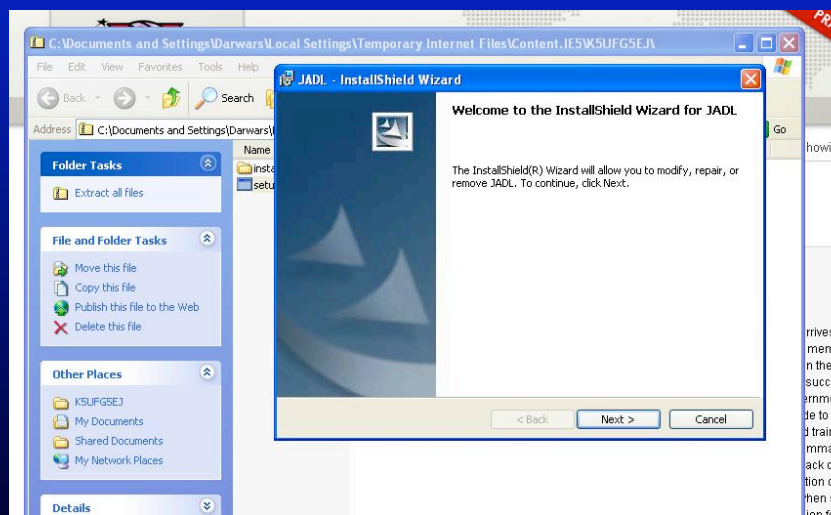
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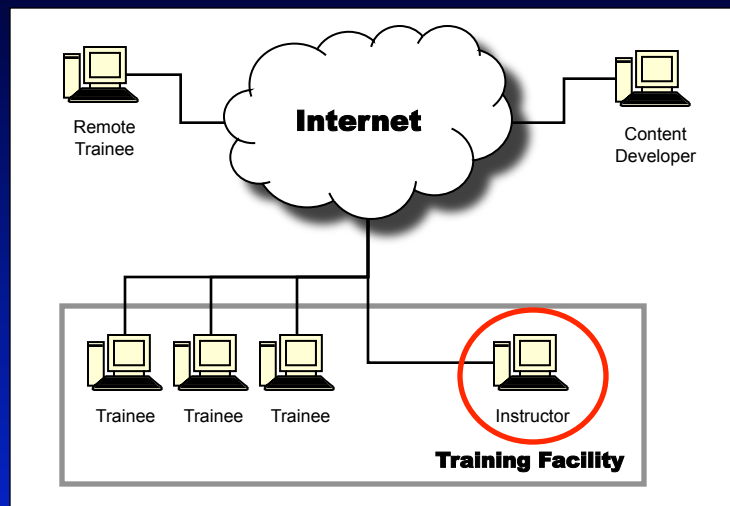
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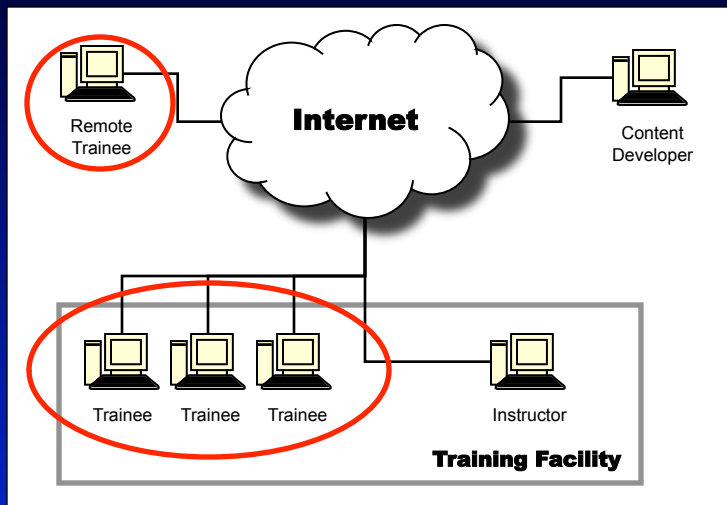
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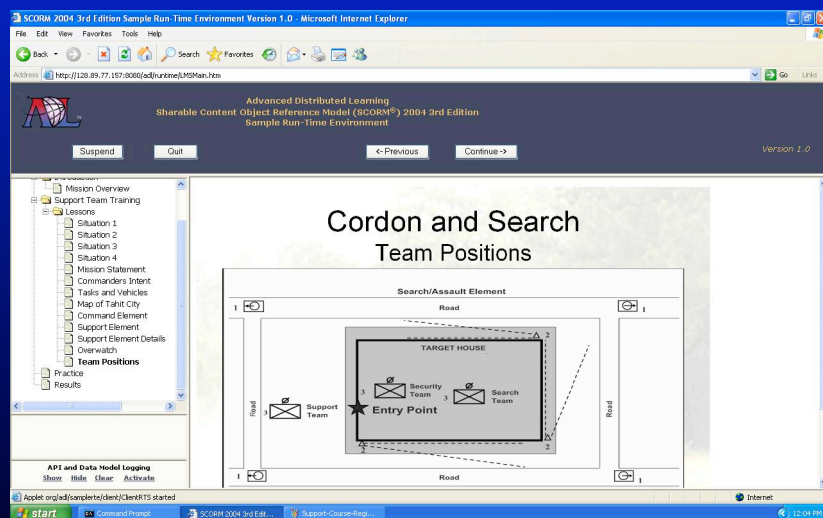
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The screenshot shows the 'DARWARS Training Event Planner' web interface. The top navigation bar includes links like 'Home', 'Manage Training', 'Training Record', 'Community', 'Information', 'Change Current Team (No Team)', and 'Find Training:'. The main content area is titled 'Plan Event for Training Package: Cordon and Knock'. It contains a form with fields for 'Name' (Cordon and Knock Event 5), 'Date/Time' (Oct 24 2008 14:40 (Time is Zulu) Now), and 'Details' (Description). Below the form, there is a table of users and their roles, with buttons for 'New User' and 'Remove User'. The bottom of the interface has 'Save', 'Reset', and 'Event Lobby' buttons.

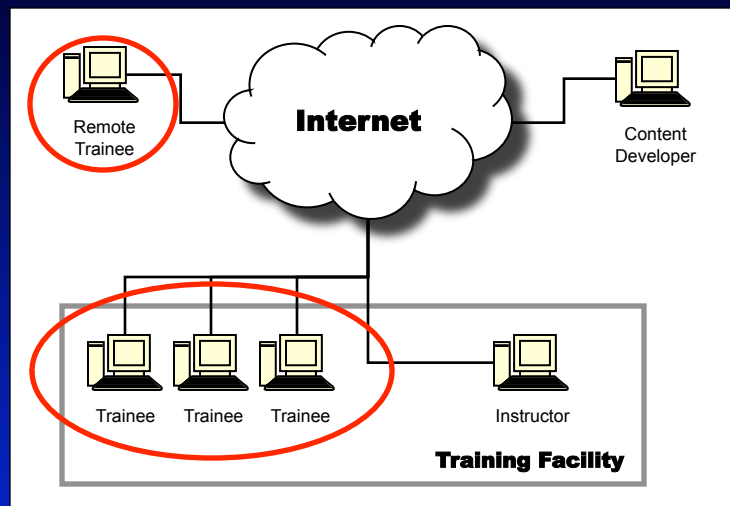
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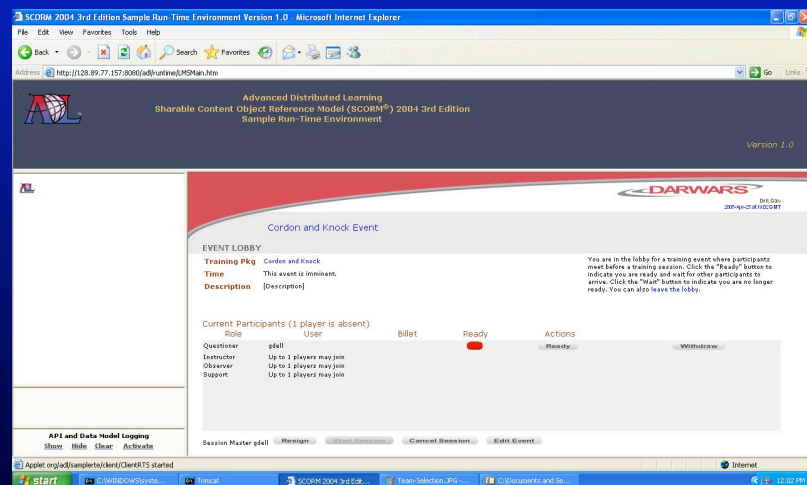
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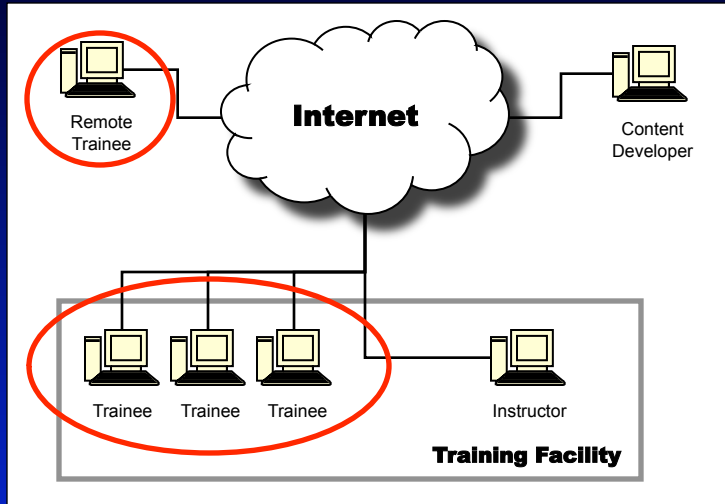
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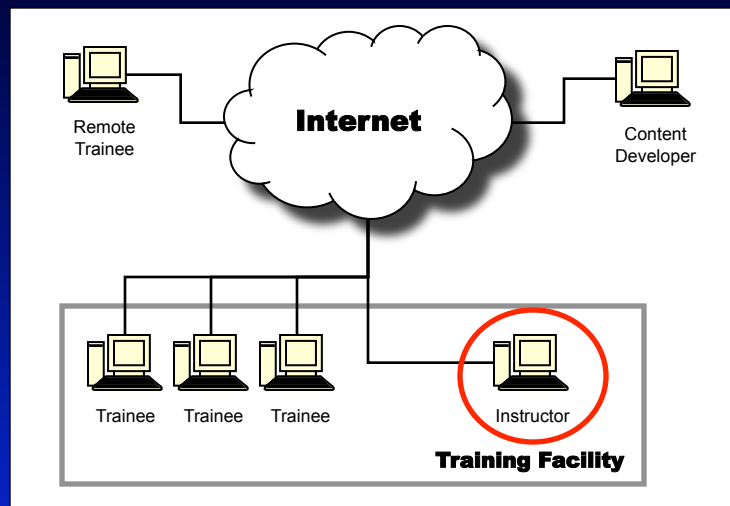


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Training Records - Microsoft Internet Explorer

Address: http://localhost:8080/Instructor/ManageStudents/organization=0/Filter=Team+Name&detail=0&teamId=Warfighters

DARWARS
Dell, Day (Admin) | Scoreable | Member | Trainee | (Instructor) Edit Profile Logout
2008-Apr-25 at 19:04 GMT

Home | Manage Training | Training Record | Community | Information | Change Current Team (No Team) | Find Trainings | Go

Training Records

Details for: Warfighters

Objective/Billet	Package	Event	Event Time	User ID	Score
Avoids leading questions	TestPackage	TestPackage Event	1970-Jan-01 at 00:00 GMT	gdell	53.72:1
		TestPackage Event 1		gdell	51.77:1
		TestPackage Event 2		gdell	48.15:1
		TestPackage Event 3		gdell	52.52:1
		TestPackage Event 4		gdell	48.44:1
Cordon and Knock-Question1	Cordon and Knock	Cordon and Knock Event	2008-Apr-25 at 19:06 GMT	broberts	100:11:2
				broberts	100:11:2
Cordon and Knock-Support1	TestPackage	TestPackage Event 5	1970-Jan-01 at 00:00 GMT	gdell	35.88:1
		TestPackage Event 6		gdell	37.08:1
		TestPackage Event 7		gdell	39.55:1
		TestPackage Event 8		gdell	31.34:1
		TestPackage Event 9		gdell	38.11:1
Is aware of security considerations	TestPackage	TestPackage Event 10	1970-Jan-01 at 00:00 GMT	broberts	44.36:1
		TestPackage Event 11		broberts	49.39:1
		TestPackage Event 12		broberts	42.82:1
		TestPackage Event 13		broberts	45.72:1
		TestPackage Event 14		broberts	49.74:1
Learn Convoy Navigation	TestPackage	TestPackage Event 15		broberts	80.31:1
		TestPackage Event 16		broberts	89.51:1

Show All Teams

Team Training

- **Team Definition**
 - Supports membership on multiple teams, including ad hoc teams
 - Support for team membership that varies over time
- **DTECS enhancements for team training**
 - Define team membership
 - Display team training records
- **Integrated SCORM & experiential training for a team**
 - Matches individuals to roles that meet their objectives in experiential training
 - Ensures that team members train together in experiential training

Status

- JADL prototype completed
- Continuing to promote web services for SCORM as a standard
- Submitted “SCORM RTE Web Services Interface” as a white paper to LETSI (Learning-Education-Training Systems Interoperability)
- Looking for transition partners to move the effort forward, particularly towards installation in a controlled operation setting

Benefits for the Warfighter

- More opportunities to assimilate field-authored lessons learned experientially, individually or in teams
- Support for a community of interest, aiding authoring, discovery, and adaptation
- More efficient training time – better match of warfighter to objectives
- Reduced cost of development and publication of training material
 - 10:1 ratios (or less) of development hours to training hours typical of end-user authoring
 - Reduced development cost through reuse
 - Registering material in a public repository can take less than an hour

Sponsors

**Joint Advanced Distributed Learning (ADL) Co-Lab
Orlando, FL**

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617-873-2288**

**travers@bbn.com
617-873-2647**